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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,324	06/09/2006	Kenichi Sasaki	12137-0003	4944
22902 7590 12/21/2009 CLARK & BRODY 1090 VERMONT AVENUE, NW SUITE 250 WASHINGTON, DC 20005			EXAMINER GOLOBY, JAMES C	
			ART UNIT 1797	PAPER NUMBER
			MAIL DATE 12/21/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/582,324

**Applicant(s)**

SASAKI ET AL.

**Examiner**

James Goloboy

**Art Unit**

1797

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2006 and 29 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 3-7, 11, 13, 14, 16, 17, 19 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 8-10, 12, 15, and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 3-7, 11, 13-14, 16-17, and 19-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 9/29/09.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 1-2, 9, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imai in view of Papay and Bott (U.S. Pat. No. 5,326,809).

Imai discloses in column 3 lines 36-53 a lubricating composition comprising a solid lubricant, an inorganic salt, a synthetic resin, and an extreme pressure agent. In

column 7 lines 22-28, Imai discloses that the synthetic resin and inorganic salt are present in a total amount of 1 to 20% by weight, and in column 6 lines 55-67, Imai discloses that weight ratio of inorganic salt to synthetic resin is from 0.25:1 to 9:1, leading to an amount of synthetic resin overlapping the ranges recited in claim 1-2. In column 3 lines 54-60 Imai discloses that the synthetic resin can be a vinyl acetate resin, as recited in claims 1-2. In column 7 lines 51-61 Imai discloses that the concentration of solid lubricant is from 1 to 20% by weight, overlapping the ranges of claims 1-2. The differences between Imai and the currently presented claims are:

i) From column 8 line 56 through column 9 line 4, Imai discloses that the composition comprises from 1 to 3% by weight of the extreme pressure additive, within the range recited for the inorganic acid amine salt of claims 1-2, and that the extreme pressure additive can be a phosphorus-containing extreme pressure additive, but does not specifically disclose the amine salt of a phosphate.

ii) Imai does not disclose the method of preparing the vinyl acetate resin

With respect to i), Papay discloses in column 33 lines 23-36 that amine salts of phosphorus acids, meeting the limitations of the claimed inorganic acid amine salt, are useful phosphorus-containing extreme pressure agents. The remainder of the composition of Imai is water and the concentration will therefore overlap the claimed concentration.

With respect to ii), Bott teaches in column 2 lines 19-27 that emulsion polymerization of vinyl acetate is stabilized by a protective colloid such as hydroxyethyl cellulose.

It would have been obvious to one of ordinary skill in the art to use the amine salts of phosphorus acids of Papay as the phosphorus-containing extreme pressure additive of Imai, as Papay teaches that it is a suitable extreme pressure agent for use in lubricating compositions. It would have been obvious to one of ordinary skill in the art to form the vinyl acetate resin of Imai by the emulsion polymerization method taught by Bott, as Bott teaches that it yields stable product. Additionally, since the composition of Imai, Papay, and Bott meets the compositional limitations of claims 1-2, it must also meet the limitations of claims 9 and 15.

5. Claims 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imai in view of Papay and Bott as applied to claims 1-2, 9, and 15 above, and further in view of Jahnke (U.S. Pat. No. 4,533,481).

The discussion of Imai, Papay, and Bott in paragraph 4 above is incorporated here by reference. Imai, Papay, and Bott disclose an aqueous metalworking composition meeting the limitations of claims 1-2 but not comprising an inorganic boric amine salt.

Jahnke, in column 1 lines 8-17, discloses corrosion inhibitors for metal surfaces coming into contact with aqueous compositions comprising the inhibitor. In column 2 lines 28-51 Jahnke teaches that the corrosion inhibitor is a boric amine salt, as recited in claims 8 and 12. In column 7 lines 20-27 Jahnke teaches that the boric amine salt is present in an amount of at least 0.01% by weight of the aqueous composition, encompassing the ranges recited in claims 1-2. The incorporation of the boric amine

salt of Jahnke in the aqueous metalworking fluid of Imai, Papay, and \*\*\* therefore meets the limitations of claims 8 and 12.

It would have been obvious to one of ordinary skill in the art to include the boric amine salt of Jahnke in the aqueous metalworking fluid of Imai, Papay, and Bott, and Jahnke teaches that it inhibits corrosion of metal surfaces in contact with the aqueous fluid.

6. Claims 10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imai in view of Papay and Bott as applied to claims 1-2, 9, and 15 above, and further in view of Schneider (U.S. Pat. No. 5,492,639).

The discussion of Imai, Papay, and Bott in paragraph 4 above is incorporated here by reference. Imai, Papay, and Bott disclose an aqueous metalworking composition meeting the limitations of claims 1-2 but not comprising an inorganic boric amine salt.

Schneider, in the abstract, discloses an aqueous mandrel lubricant. In column 1 lines 17-32, Schneider teaches that metal tubes are continuously rolled by using a mandrel bar. Therefore, it would have been obvious to one of ordinary skill in the art to apply the aqueous metalworking lubricant of Imai, Papay, and Bott to a mandrel bar and continuously roll tubes by utilizing the bar, when the metalworking operation is a rolling operation.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Goloboy whose telephone number is (571)272-2476. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JCG

/Glenn A Caldarola/  
Acting SPE of Art Unit 1797